

SEQUENCE LISTING

<110> Tosoh Corporation
 <120> IL-6 RECEPTOR IL-6 DIRECT FUSION PROTEIN
 <130> Q62375
 <140> 09/743,239
 <141> 2001-01-05
 <150> JP Hei. No. 10-190597
 <151> 1998-07-06
 <150> JP Hei. No. 11-21788
 <151> 1999-01-29
 <150> JP Hei. No. 11-123411
 <151> 1999-04-30
 <160> 79
 <170> PatentIn version 3.1
 <210> 1
 <211> 39
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Annealed Sequence
 <400> 1
 gatccctcc agctggcggg ggtggatccg ccccggtac
 <210> 2
 <211> 31
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Annealed Sequence
 <400> 2
 cggggcggat ccaccaccgc cagctggagg g
 <210> 3
 <211> 54
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Annealed Sequence

39

31

<400> 3
 gatcccctcc agctggtggc ggtggctcgg gcggtggtgg gtcggccccg gtac 54

<210> 4
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 4
 cggggccgac ccaccaccgc ccgagccacc gccaccagct ggaggg 46

<210> 5
 <211> 60
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 5
 gatcccctcc agctgagaac gaggtgtcca ccccatgca ggcacttcca gccccggtac 60

<210> 6
 <211> 52
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 6
 cggggctgga agtgcctgca tgggggtgga cacctcgttc tcagctggag gg 52

<210> 7
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 7
 gatcccctcc agctgagaac gaggtgtcca ccccatgca ggcagccccg gtac 54

<210> 8
 <211> 46

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 8
 cggggctgcc tgcattggggg tggacacctc gttctcagct ggaggg 46

 <210> 9
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 9
 gatccctcc agctgccccg gtac 24

 <210> 10
 <211> 16
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 10
 cggggcagct ggaggg 16

 <210> 11
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 11
 aggtggcggg ggtatccgcc cggtac 26

 <210> 12
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 12

cggggcggat ccaccgccac ct 22

<210> 13
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 13
 aggtggcggt ggctcgggcg gtggtgggtc ggccccgta c 41

<210> 14
 <211> 37
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 14
 cggggccgac ccaccaccgc ccgagccacc gccacct 37

<210> 15
 <211> 71
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 15
 acttactact aataaagacg atgataatat tgggtggcggt ggctcgggcg gtggtgggtc 60
 ggccccgta c 71

<210> 16
 <211> 67
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 16
 cggggccgac ccaccaccgc ccgagccacc gccaccaata ttatcatcgt ctttattagt 60
 agtaagt 67

<210> 17
<211> 56
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 17
aggtggcggg ggctcgggcg gtggtgggtc gggcggcgcc ggatctgccc cggtag 56

<210> 18
<211> 52
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 18
cggggcagat ccgcccgcac ccgaccacc accgcccag ccaccgcac ct 52

<210> 19
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 19
aggtggcgcc ccggtac 17

<210> 20
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 20
cggggcgcca cct 13

<210> 21
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 21
 aggtggcggt ggcgccccgg tac 23

<210> 22
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 22
 cggggcgcca ccgccacct 19

<210> 23
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 23
 acttactact aataaagacg atgataatat tggtagcgcc ccgtac 47

<210> 24
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 24
 cggggcgcca ccaatattat catcgtcttt attagtagta agt 43

<210> 25
 <211> 53
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Annealed Sequence

<400> 25
 acttactact aataaagacg atgataatat tggtagcggt ggcgccccgg tac 53

<210> 26
 <211> 49

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 26
 cggggcgcca ccgccaccaa tattatcatc gtctttatta gtagtaagt 49

 <210> 27
 <211> 95
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 27
 acttactact aataaagacg atgataatat tctcttcaga gattctgcaa atgcgacaag 60
 cctcccagtg caagattctt cttcagcccc ggtac 95

 <210> 28
 <211> 91
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 28
 cggggctgaa gaagaatctt gcaactgggag gcttgctgca ttgcagaat ctctgaagag 60
 aatattatca tcgtctttat tagtagtaag t 91

 <210> 29
 <211> 86
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 29
 acttactact aataaagacg atgataatat tctcttcaga gattctgcaa atgcgacaag 60
 cctcccagtg caagatgccc cggtagc 86

 <210> 30
 <211> 82
 <212> DNA

<213> Artificial Sequence

<220>

<223> Annealed Sequence

<400> 30

cggggcatct tgcactggga ggcttgcgc atttcagaa tctctgaaga gaattattatc 60

atcgtcttta ttagtagtaa gt 82

<210> 31

<211> 68

<212> DNA

<213> Artificial Sequence

<220>

<223> Annealed Sequence

<400> 31

acttactact aataaagacg atgataatat tctcttcaga gattctgcaa atgcgacagc 60

cccgttac 68

<210> 32

<211> 64

<212> DNA

<213> Artificial Sequence

<220>

<223> Annealed Sequence

<400> 32

cggggctgtc gcatttcag aatctctgaa gagaatatta tcacgtctt tattagtagt 60

aagt 64

<210> 33

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Annealed Sequence

<400> 33

acttactact aataaagacg atgataatat tctcttcaga gccccgatc 50

<210> 34

<211> 46

<212> DNA

<213> Artificial Sequence

<220>
 <223> Annealed Sequence

 <400> 34
 cggggctctg aagagaatat tatcatcgtc tttattagta gtaagt 46

 <210> 35
 <211> 41
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 35
 acttactact aataaagacg atgataatat tgccccggtta c 41

 <210> 36
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 36
 cggggcaata ttatcatcgt ctttattagt agtaagt 37

 <210> 37
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 37
 acttactact aataaagccc cggtac 26

 <210> 38
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Annealed Sequence

 <400> 38
 cggggcttta ttagtagtaa gt 22

<210> 39
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 39
acttactgcc ccggtac 17

<210> 40
<211> 13
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 40
cggggcagta agt 13

<210> 41
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 41
acttactact aataaagacg atgataatat tccggtac 38

<210> 42
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Annealed Sequence

<400> 42
cggaatatta tcatcgtctt tattagtagt aagt 34

<210> 43
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Annealed Sequence

<400> 43

acttactact aataaaccgg tac

23

<210> 44

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Annealed Sequence

<400> 44

cggtttatta gtagtaagt

19

<210> 45

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 45

ctcgagaaga ggctggcccc aaggcgctgc cc

32

<210> 46

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 46

agatctggat tctgtccaag gcgtgcccat ggc

33

<210> 47

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 47

agatctggta cccccaggag aagattcc

28

<210> 48

<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 48
atgcggccgc tacatttgcc gaagagccc

29

<210> 49
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligomer

<400> 49
gatccctcc agctgagaac gaggtgtcca ccccatgca agcgctggta c

51

<210> 50
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligomer

<400> 50
cagcgcttgc atgggggtgg acacctcgtt ctcagctgga ggg

43

<210> 51
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 51
ctcgagaaga gggttcccc cgaggagccc cag

33

<210> 52
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 52
tctctagaga atattatcat cg 22

<210> 53
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 53
ctcgagaaga gggagcccca gctctcctg 29

<210> 54
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 54
tctctagaga atattatcat cg 22

<210> 55
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 55
tctcgcgatg tagccgcccc acac 24

<210> 56
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 56
atgcggccgc tacatttgcc gaagagccc 29

<210> 57
<211> 33
<212> DNA

<400> 61

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 62

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker

<400> 62

Ser Ser Glu Leu Val
1 5

<210> 63

<211> 468

<212> PRT

<213> Homo sapiens

<400> 63

Met Leu Ala Val Gly Cys Ala Leu Leu Ala Ala Leu Leu Ala Ala Pro
1 5 10 15

Gly Ala Ala Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg
20 25 30

Gly Val Leu Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro
35 40 45

Gly Val Glu Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys
50 55 60

Pro Ala Ala Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg
65 70 75 80

Leu Leu Leu Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys
85 90 95

Tyr Arg Ala Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val
100 105 110

Pro Pro Glu Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser
 115 120 125

Asn Val Val Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr
 130 135 140

Lys Ala Val Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp
 145 150 155 160

Phe Gln Glu Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys
 165 170 175

Gln Leu Ala Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met
 180 185 190

Cys Val Ala Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe
 195 200 205

Gln Gly Cys Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val
 210 215 220

Thr Ala Val Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp
 225 230 235 240

Pro His Ser Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg
 245 250 255

Tyr Arg Ala Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp
 260 265 270

Leu Gln His His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His
 275 280 285

Val Val Gln Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser
 290 295 300

Glu Trp Ser Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser
 305 310 315 320

Pro Pro Ala Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr
 325 330 335

Asn Lys Asp Asp Asp Asn Ile Leu Phe Arg Asp Ser Ala Asn Ala Thr
 340 345 350

Ser Leu Pro Val Gln Asp Ser Ser Ser Val Pro Leu Pro Thr Phe Leu
 355 360 365

Val Ala Gly Gly Ser Leu Ala Phe Gly Thr Leu Leu Cys Ile Ala Ile
 370 375 380

Val Leu Arg Phe Lys Lys Thr Trp Lys Leu Arg Ala Leu Lys Glu Gly
 385 390 395 400

Lys Thr Ser Met His Pro Pro Tyr Ser Leu Gly Gln Leu Val Pro Glu
 405 410 415

Arg Pro Arg Pro Thr Pro Val Leu Val Pro Leu Ile Ser Pro Pro Val
 420 425 430

Ser Pro Ser Ser Leu Gly Ser Asp Asn Thr Ser Ser His Asn Arg Pro
 435 440 445

Asp Ala Arg Asp Pro Arg Ser Pro Tyr Asp Ile Ser Asn Thr Asp Tyr
 450 455 460

Phe Phe Pro Arg
 465

<210> 64
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 64

Met Asn Ser Phe Ser Thr Ser Ala Phe Gly Pro Val Ala Phe Ser Leu
 1 5 10 15

Gly Leu Leu Leu Val Leu Pro Ala Ala Phe Pro Ala Pro Val Pro Pro
 20 25 30

Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln Pro Leu Thr
 35 40 45

Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile Leu Asp Gly Ile
50 55 60

Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met Cys Glu Ser
65 70 75 80

Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys Met Ala
85 90 95

Glu Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys Leu
100 105 110

Val Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu Val Tyr Leu Glu Tyr
115 120 125

Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala Arg Ala Val Gln
130 135 140

Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn
145 150 155 160

Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu
165 170 175

Thr Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His
180 185 190

Leu Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg Ala
195 200 205

Leu Arg Gln Met
210

<210> 65
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Linker

<400> 65

Gly Gly Gly Gly Ser
1 5

<210> 66
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Linker

<400> 66

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 67
<211> 499
<212> PRT
<213> Artificial Sequence

<220>
<223> IL-6R - IL-6 fusion protein

<400> 67

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
100 105 110

Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Ala Pro Val Pro Pro Gly
305 310 315 320

Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln Pro Leu Thr Ser
325 330 335

Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile Leu Asp Gly Ile Ser
340 345 350

Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met Cys Glu Ser Ser
355 360 365

Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys Met Ala Glu
370 375 380

Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys Leu Val
385 390 395 400

Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu Val Tyr Leu Glu Tyr Leu
405 410 415

Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala Arg Ala Val Gln Met
420 425 430

Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn Leu
435 440 445

Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu Thr
450 455 460

Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His Leu
465 470 475 480

Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg Ala Leu
485 490 495

Arg Gln Met

<210> 68

<211> 489

<212> PRT

<213> Artificial Sequence

<220>

<223> IL-6R - IL-6 fusion protein

<400> 68

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15
 Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30
 Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45
 Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60
 Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80
 Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95
 Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110
 Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125
 Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
 130 135 140
 Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
 145 150 155 160
 Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
 165 170 175
 Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
 180 185 190
 Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
 195 200 205
 Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
 210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
 225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
 245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
 260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
 275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
 290 295 300

Ala Pro Val Pro Pro Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His
 305 310 315 320

Arg Gln Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr
 325 330 335

Ile Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser
 340 345 350

Asn Met Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn
 355 360 365

Leu Pro Lys Met Ala Glu Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn
 370 375 380

Glu Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu
 385 390 395 400

Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln
 405 410 415

Ala Arg Ala Val Gln Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln
 420 425 430

Lys Lys Ala Lys Asn Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr

435

440

445

Asn Ala Ser Leu Leu Thr Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln
 450 455 460

Asp Met Thr Thr His Leu Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln
 465 470 475 480

Ser Ser Leu Arg Ala Leu Arg Gln Met
 485

<210> 69
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Linker

<400> 69

Gly Gly Gly Gly
 1

<210> 70
 <211> 527
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> IL-6R - IL-6 fusion protein

<400> 70

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110

Cys*Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
 130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
 145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
 165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
 180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
 195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
 210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
 225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
 245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
 260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
 275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
 290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr Asn Lys Asp
 305 310 315 320

Asp Asp Asn Ile Leu Phe Arg Asp Ser Ala Asn Ala Thr Ser Leu Pro
 325 330 335

Val Gln Asp Ser Ser Ser Ala Pro Val Pro Pro Gly Glu Asp Ser Lys
 340 345 350

Asp Val Ala Ala Pro His Arg Gln Pro Leu Thr Ser Ser Glu Arg Ile
 355 360 365

Asp Lys Gln Ile Arg Tyr Ile Leu Asp Gly Ile Ser Ala Leu Arg Lys
 370 375 380

Glu Thr Cys Asn Lys Ser Asn Met Cys Glu Ser Ser Lys Glu Ala Leu
 385 390 395 400

Ala Glu Asn Asn Leu Asn Leu Pro Lys Met Ala Glu Lys Asp Gly Cys
 405 410 415

Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile Thr
 420 425 430

Gly Leu Leu Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe
 435 440 445

Glu Ser Ser Glu Glu Gln Ala Arg Ala Val Gln Met Ser Thr Lys Val
 450 455 460

Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp Ala Ile Thr
 465 470 475 480

Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys Leu Gln Ala
 485 490 495

Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His Leu Ile Leu Arg Ser
 500 505 510

Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg Gln Met
515 520 525

<210> 71
<211> 524
<212> PRT
<213> Artificial Sequence

<220>
<223> IL-6R - IL-6 fusion protein

<400> 71

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
100 105 110

Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr Asn Lys Asp
305 310 315 320

Asp Asp Asn Ile Leu Phe Arg Asp Ser Ala Asn Ala Thr Ser Leu Pro
325 330 335

Val Gln Asp Ala Pro Val Pro Pro Gly Glu Asp Ser Lys Asp Val Ala
340 345 350

Ala Pro His Arg Gln Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln
355 360 365

Ile Arg Tyr Ile Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys
370 375 380

Asn Lys Ser Asn Met Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn
 385 390 395 400

Asn Leu Asn Leu Pro Lys Met Ala Glu Lys Asp Gly Cys Phe Gln Ser
 405 410 415

Gly Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu
 420 425 430

Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser Ser
 435 440 445

Glu Glu Gln Ala Arg Ala Val Gln Met Ser Thr Lys Val Leu Ile Gln
 450 455 460

Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp Ala Ile Thr Thr Pro Asp
 465 470 475 480

Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys Leu Gln Ala Gln Asn Gln
 485 490 495

Trp Leu Gln Asp Met Thr Thr His Leu Ile Leu Arg Ser Phe Lys Glu
 500 505 510

Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg Gln Met
 515 520

<210> 72
 <211> 518
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> IL-6R - IL-6 fusion protein

<400> 72

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110

Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
 130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
 145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
 165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
 180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
 195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
 210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
 225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
 245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr Asn Lys Asp
305 310 315 320

Asp Asp Asn Ile Leu Phe Arg Asp Ser Ala Asn Ala Thr Ala Pro Val
325 330 335

Pro Pro Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln Pro
340 345 350

Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile Leu Asp
355 360 365

Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met Cys
370 375 380

Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys
385 390 395 400

Met Ala Glu Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr
405 410 415

Cys Leu Val Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu Val Tyr Leu
420 425 430

Glu Tyr Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala Arg Ala
435 440 445

Val Gln Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys Ala
450 455 460

Lys Asn Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser

465 470 475 480
 Leu Leu Thr Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp Met Thr
 485 490 495
 Thr His Leu Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu
 500 505 510
 Arg Ala Leu Arg Gln Met
 515

 <210> 73
 <211> 512
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> IL-6R - IL-6 fusion protein

 <400> 73
 Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15
 Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30
 Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45
 Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60
 Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80
 Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95
 Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110
 Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr Asn Lys Asp
305 310 315 320

Asp Asp Asn Ile Leu Phe Arg Ala Pro Val Pro Pro Gly Glu Asp Ser
325 330 335

Lys Asp Val Ala Ala Pro His Arg Gln Pro Leu Thr Ser Ser Glu Arg

340

345

350

Ile Asp Lys Gln Ile Arg Tyr Ile Leu Asp Gly Ile Ser Ala Leu Arg
 355 360 365

Lys Glu Thr Cys Asn Lys Ser Asn Met Cys Glu Ser Ser Lys Glu Ala
 370 375 380

Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys Met Ala Glu Lys Asp Gly
 385 390 395 400

Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile
 405 410 415

Thr Gly Leu Leu Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg
 420 425 430

Phe Glu Ser Ser Glu Glu Gln Ala Arg Ala Val Gln Met Ser Thr Lys
 435 440 445

Val Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp Ala Ile
 450 455 460

Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys Leu Gln
 465 470 475 480

Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His Leu Ile Leu Arg
 485 490 495

Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg Gln Met
 500 505 510

<210> 74

<211> 509

<212> PRT

<213> Artificial Sequence

<220>

<223> IL-6R - IL-6 fusion protein

<400> 74

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110

Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
 130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
 145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
 165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
 180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
 195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
 210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala

225		230		235		240
Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His	245		250		255	
His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln	260		265		270	
Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser	275		280		285	
Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala	290		295		300	
Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr Asn Lys Asp	305		310		315	320
Asp Asp Asn Ile Ala Pro Val Pro Pro Gly Glu Asp Ser Lys Asp Val	325		330		335	
Ala Ala Pro His Arg Gln Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys	340		345		350	
Gln Ile Arg Tyr Ile Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr	355		360		365	
Cys Asn Lys Ser Asn Met Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu	370		375		380	
Asn Asn Leu Asn Leu Pro Lys Met Ala Glu Lys Asp Gly Cys Phe Gln	385		390		395	400
Ser Gly Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu	405		410		415	
Leu Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser	420		425		430	
Ser Glu Glu Gln Ala Arg Ala Val Gln Met Ser Thr Lys Val Leu Ile	435		440		445	

Gln Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp Ala Ile Thr Thr Pro
 450 455 460

Asp Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys Leu Gln Ala Gln Asn
 465 470 475 480

Gln Trp Leu Gln Asp Met Thr Thr His Leu Ile Leu Arg Ser Phe Lys
 485 490 495

Glu*Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg Gln Met
 500 505

<210> 75

<211> 504

<212> PRT

<213> Artificial Sequence

<220>

<223> IL-6R - IL-6 fusion protein

<400> 75

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110

Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val

115					120					125					
Leu	Leu	Val	Arg	Lys	Phe	Gln	Asn	Ser	Pro	Ala	Glu	Asp	Phe	Gln	Glu
130						135					140				
Pro	Cys	Gln	Tyr	Ser	Gln	Glu	Ser	Gln	Lys	Phe	Ser	Cys	Gln	Leu	Ala
145					150					155					160
Val	Pro	Glu	Gly	Asp	Ser	Ser	Phe	Tyr	Ile	Val	Ser	Met	Cys	Val	Ala
				165					170					175	
Ser	Ser	Val	Gly	Ser	Lys	Phe	Ser	Lys	Thr	Gln	Thr	Phe	Gln	Gly	Cys
			180					185					190		
Gly	Ile	Leu	Gln	Pro	Asp	Pro	Pro	Ala	Asn	Ile	Thr	Val	Thr	Ala	Val
		195					200					205			
Ala	Arg	Asn	Pro	Arg	Trp	Leu	Ser	Val	Thr	Trp	Gln	Asp	Pro	His	Ser
		210				215					220				
Trp	Asn	Ser	Ser	Phe	Tyr	Arg	Leu	Arg	Phe	Glu	Leu	Arg	Tyr	Arg	Ala
225					230					235					240
Glu	Arg	Ser	Lys	Thr	Phe	Thr	Thr	Trp	Met	Val	Lys	Asp	Leu	Gln	His
				245					250					255	
His	Cys	Val	Ile	His	Asp	Ala	Trp	Ser	Gly	Leu	Arg	His	Val	Val	Gln
			260					265					270		
Leu	Arg	Ala	Gln	Glu	Glu	Phe	Gly	Gln	Gly	Glu	Trp	Ser	Glu	Trp	Ser
		275					280					285			
Pro	Glu	Ala	Met	Gly	Thr	Pro	Trp	Thr	Glu	Ser	Arg	Ser	Pro	Pro	Ala
		290				295					300				
Glu	Asn	Glu	Val	Ser	Thr	Pro	Met	Gln	Ala	Leu	Thr	Thr	Asn	Lys	Ala
305					310					315					320
Pro	Val	Pro	Pro	Gly	Glu	Asp	Ser	Lys	Asp	Val	Ala	Ala	Pro	His	Arg
				325					330					335	

Gln Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile
340 345 350

Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn
355 360 365

Met Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu
370 375 380

Pro^{*} Lys Met Ala Glu Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu
385 390 395 400

Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu Val
405 410 415

Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala
420 425 430

Arg Ala Val Gln Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys
435 440 445

Lys Ala Lys Asn Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn
450 455 460

Ala Ser Leu Leu Thr Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp
465 470 475 480

Met Thr Thr His Leu Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser
485 490 495

Ser Leu Arg Ala Leu Arg Gln Met
500

<210> 76

<211> 501

<212> PRT

<213> Artificial Sequence

<220>

<223> IL-6R - IL-6 fusion protein

<400> 76

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu

1	5	10	15
Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu	20	25	30
Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala	35	40	45
Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu	50	55	60
Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala	65	70	75
Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu	85	90	95
Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val	100	105	110
Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val	115	120	125
Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu	130	135	140
Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala	145	150	155
Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala	165	170	175
Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys	180	185	190
Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val	195	200	205
Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser	210	215	220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
 225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
 245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
 260 265 270

Leu* Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
 275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
 290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Ala Pro Val Pro
 305 310 315 320

Pro Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln Pro Leu
 325 330 335

Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile Leu Asp Gly
 340 345 350

Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met Cys Glu
 355 360 365

Ser Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys Met
 370 375 380

Ala Glu Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys
 385 390 395 400

Leu Val Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu Val Tyr Leu Glu
 405 410 415

Tyr Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala Arg Ala Val
 420 425 430

Gln Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys
 435 440 445

Asn Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu
 450 455 460

Leu Thr Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr
 465 470 475 480

His Leu Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg
 485 490 495

Ala Leu Arg Gln Met
 500

<210> 77

<211> 508

<212> PRT

<213> Artificial Sequence

<220>

<223> IL-6R - IL-6 fusion protein

<400> 77

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110

Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
 130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
 145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
 165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
 180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
 195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
 210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
 225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
 245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
 260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
 275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
 290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr Asn Lys Asp
 305 310 315 320

Asp Asp Asn Ile Pro Val Pro Pro Gly Glu Asp Ser Lys Asp Val Ala
 325 330 335

Ala Pro His Arg Gln Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln
340 345 350

Ile Arg Tyr Ile Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys
355 360 365

Asn Lys Ser Asn Met Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn
370 375 380

Asn Leu Asn Leu Pro Lys Met Ala Glu Lys Asp Gly Cys Phe Gln Ser
385 390 395 400

Gly Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu
405 410 415

Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser Ser
420 425 430

Glu Glu Gln Ala Arg Ala Val Gln Met Ser Thr Lys Val Leu Ile Gln
435 440 445

Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp Ala Ile Thr Thr Pro Asp
450 455 460

Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys Leu Gln Ala Gln Asn Gln
465 470 475 480

Trp Leu Gln Asp Met Thr Thr His Leu Ile Leu Arg Ser Phe Lys Glu
485 490 495

Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg Gln Met
500 505

<210> 78

<211> 503

<212> PRT

<213> Artificial Sequence

<220>

<223> IL-6R - IL-6 fusion protein

<400> 78

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15
 Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30
 Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45
 Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60
 Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80
 Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95
 Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110
 Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125
 Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
 130 135 140
 Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
 145 150 155 160
 Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
 165 170 175
 Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
 180 185 190
 Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
 195 200 205
 Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
 210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
 225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
 245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
 260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
 275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
 290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr Asn Lys Pro
 305 310 315 320

Val Pro Pro Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln
 325 330 335

Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile Leu
 340 345 350

Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met
 355 360 365

Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro
 370 375 380

Lys Met Ala Glu Lys Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu Glu
 385 390 395 400

Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu Glu Phe Glu Val Tyr
 405 410 415

Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala Arg
 420 425 430

Ala Val Gln Met Ser Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys
 435 440 445

Ala Lys Asn Leu Asp Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala
 450 455 460

Ser Leu Leu Thr Lys Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp Met
 465 470 475 480

Thr Thr His Leu Ile Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser
 485 490 495

Leu Arg Ala Leu Arg Gln Met
 500

<210> 79

<211> 498

<212> PRT

<213> Artificial Sequence

<220>

<223> IL-6R - IL-6 fusion protein

<400> 79

Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg Gly Val Leu
 1 5 10 15

Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro Gly Val Glu
 20 25 30

Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys Pro Ala Ala
 35 40 45

Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg Leu Leu Leu
 50 55 60

Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys Tyr Arg Ala
 65 70 75 80

Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val Pro Pro Glu
 85 90 95

Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser Asn Val Val
 100 105 110

Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr Lys Ala Val
 115 120 125

Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp Phe Gln Glu
 130 135 140

Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys Gln Leu Ala
 145 150 155 160

Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met Cys Val Ala
 165 170 175

Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe Gln Gly Cys
 180 185 190

Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val Thr Ala Val
 195 200 205

Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp Pro His Ser
 210 215 220

Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg Tyr Arg Ala
 225 230 235 240

Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp Leu Gln His
 245 250 255

His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His Val Val Gln
 260 265 270

Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser Glu Trp Ser
 275 280 285

Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser Pro Pro Ala
 290 295 300

Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Val Pro Pro Gly Glu
 305 310 315 320

Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln Pro Leu Thr Ser Ser
 325 330 335

Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile Leu Asp Gly Ile Ser Ala
340 345 350

Leu Arg Lys Glu Thr Cys Asn Lys Ser Asn Met Cys Glu Ser Ser Lys
355 360 365

Glu Ala Leu Ala Glu Asn Asn Leu Asn Leu Pro Lys Met Ala Glu Lys
370 375 380

Asp Gly Cys Phe Gln Ser Gly Phe Asn Glu Glu Thr Cys Leu Val Lys
385 390 395 400

Ile Ile Thr Gly Leu Leu Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln
405 410 415

Asn Arg Phe Glu Ser Ser Glu Glu Gln Ala Arg Ala Val Gln Met Ser
420 425 430

Thr Lys Val Leu Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp
435 440 445

Ala Ile Thr Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys
450 455 460

Leu Gln Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His Leu Ile
465 470 475 480

Leu Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg
485 490 495

Gln Met